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(See pages 10-12)

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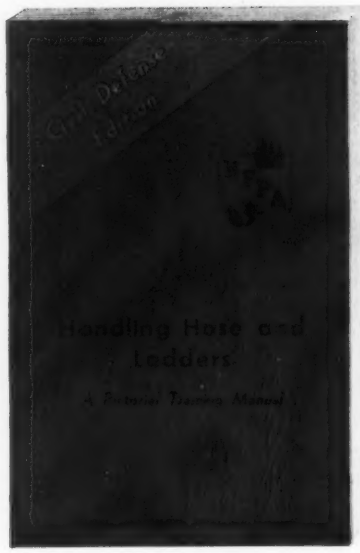

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Firemen

Volume 18 — Number 5

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Contents for May 1951

Public Fire Protection in Japan by George W. Angell 8
The Los Angeles County Fire Department 10
Detroit, Michigan, Will Be Host to the 55th NFPA Annual Meeting 13
Norfolk Fire College Officers' Training Course 14
Entire Philadelphia Fire Department Radio Equipped 14
Winners of the First Fire Foto Contest of the Year 15
Pre-connected 1½-in. Quick Lines 16
The Fire Squad at Antioch College, by Chief Kenneth W. Kreitner 17
Membership Report 18
Survey of Firemen's Training Conducted for New York City . . 19
Civil Defense Organization for Apartments, Office and Loft Buildings 20
Florida Fire College to Begin Weekly Sessions 21
Fire Schools in 1951 21
Recent NFPA Publications 22
"Invite a Carload" 23
What's New in Fire Equipment? 24

Civil Fire Defense

WHAT has your department done about civil fire defense? Are mutual aid plans already in operation with neighboring departments? If you are accustomed to working together at peace-time fires the chances are that wartime cooperation will not be too difficult. What plans have been made for emergency communications in event that telephone and other wired services are interrupted? Fire service radio is an essential. It is not expensive when compared with the cost of hose and pumpers. A number of smaller fire departments can share the same frequency and transmitting equipment and can operate under an agreement on the same license. Have inventories been made of auxiliary water supplies available in the event of breakdown of normal hydrant service? Has the department tried out any definite plans for pumper relays and for development of heavy streams? What has been done to encourage local organization of fire guard squads to guard private properties and local subdivisions that may not get immediate attention of the fire department during a major emergency? It is unrealistic to expect that the federal government can or will provide effective fire protection for every community on the home front. America has by far the strongest fire fighting service in the world. However, because fire protection is primarily the responsibility of the individual community, mutual aid planning and organization is needed to bring an adequate fire fighting force to a trouble spot whenever a fire threatens to assume conflagration proportions.

Boy Scouts and Volunteer Firemen

IT may not be widely known that volunteer fire companies numerically are among the leading groups of sponsors of scout troops for the Boy Scouts of America. The latest available information indicates that fire companies are sponsoring more than 770 individual troops. Further, the Boy Scout authorities rate the brand of supervision provided by fire departments as high among the groups of civic organizations that are serving as sponsoring organizations. The Boy Scouts of America are anxious to have fire companies sponsor even more scout troops. They point out that only half of the boys that desired scouting could be accommodated last year by existing troops and that many of these boys reside in residential suburban districts and small communities served by volunteer fire companies.

Fire fighters who have been in scouting do not have to be told that the Boy Scouts and the volunteer fire service have the same great objectives of voluntary service, preparedness and ability to help others in an emergency. The "Firemanship Merit Badge" is still the most popular of all the merit badges that are not specifically required for advancement.

Many volunteer fire companies might be well advised to consider the possibility of sponsoring a boy scout troop. This would help assure that in the future there will be a group of young men in the community who are familiar with the aims and work of the fire department. In the past, many volunteer fire departments have recruited in the 18–21 age bracket. Now, in the United States, the military draft is taking many of the young men who formerly would have been joining the local volunteer fire companies. It may be highly desirable to have a scout troop that can enlist the interest of the boys before they leave for military service. The scouts could provide a select group having a feeling of pride in association with the fire department. Young people can find in the volunteer fire department an expression of their own ideals of service, bravery and skilled competence. Then the fire company can keep in touch with the former scouts and provide another home-tie for young men in military service. When they return with discipline and military know-how added to their vigor and enthusiasm, the former scouts should make splendid recruits for volunteer fire companies and rescue squads.

It should not be overlooked that senior scouts in the 15–17 year group can assist fire departments in many community projects. The ideas that boys gain during this period may last a lifetime. On the other hand, the volunteer fire department that has no junior community program may be hard put later on to obtain suitable, physically fit, and alert young replacements. Fire companies interested in the possibility of sponsoring scout troops should write Commander Thomas Keane, Director, Civic Relationships Department, Boy Scouts of America, 2 Park Ave., New York, N. Y., or to their regional scout executive.

Public Fire Protection in Japan

by George W. Angell

Mr. Angell has been serving in Japan as Chief Fire Administrator, Public Safety Division, G-2, U. S. General Headquarters. In this first of two articles he outlines the conditions of the Japanese Fire Service as they were when his office began operations. In a subsequent issue of FIREMEN the concluding article will explain steps taken to reorganize the fire service in Japan.

THE Fire Branch of the Public Safety Division was organized on January 15, 1946 and assigned to reorganization of fire-fighting systems and the training of fire-fighting personnel. The magnitude of this task, probably without precedent in the field of fire protection, can scarcely be imagined by those not fully acquainted with the conditions existing in Japan after the surrender. Here was a nation literally destroyed by fire, its fire defense forces stunned and demoralized, its economy weakened almost to the breaking point. The task of rebuilding the antiquated fire service of Japan on modern and democratic principles seemed near to impossible.

Preliminary surveys were made of fire department organization, administrative procedures, operational techniques, equipment and educational programs in representative cities in all forty-six prefectures. This involved thousands of miles of travel. Often, because of the language barrier, countless hours of interrogation were needed to obtain the desired information. It was apparent that rather drastic organizational changes in the structure of the Japanese fire service were necessary. Some of these changes, such as removal of police control over fire departments and the establishment of municipal fire departments, would require national legislation. But far more than organizational change was necessary. The alterations in thought patterns springing from generations of indoctrination would be much more difficult to attain.

(*See NFPA* FIREMEN *for May 1948, page 4, "Japanese Firemen Progress Under Allied Occupation."*)

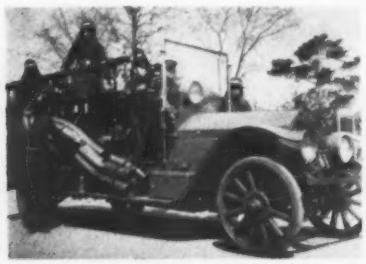
THE fire department of Japan, traditionally a subordinate division of the police organization, offered little opportunity as a career. Fire officials were unable to think of themselves otherwise than as minor cogs in the police machine. What little training the firemen received consisted mainly of military formations, with practically no fire-fighting. Such a system could not produce firemen who were either capable of solving, or willing to solve, the most elementary administrative and operational problems.

When the Fire Branch was organized in 1946 no fire department in Japan had a Fire Prevention Section and little, if any, effort was expended in preventing losses. Insurance companies had no interest in the improvement of public fire protection and determined their rates entirely upon the unrealistic basis of the number of fires occurring in an area during three previous years.

The few fire alarm systems in existence in the larger cities were poorly designed, by modern standards, and extremely unreliable. The public telephone system, sadly neglected during the war years and largely inoperative because of the bombings, was of little use for the reporting of fires. Water systems, designed to handle only domestic requirements, were made even more inadequate by war and earthquake damage. Fire apparatus was of very old design, averaged thirteen years in age and was in a bad state of repair. Public opinion of the firefighters was at a low ebb because of their failure to control fires resulting from incendiary bombings during the war. Add to all of these deficiencies the fatalistic attitude of the Japanese that fires are inevitable, and one begins to comprehend the difficulties with which the Fire Branch was faced.

ALL Japanese fire departments used unlined linen hose similar to that employed in the United States for interior protection of office buildings, schools, hospitals and other similar structures. In 1946 only one mill was producing hose, and that was of very poor quality. Some of the hose in service was found to have more than one hundred leaks which had been darned or patched with copper rivets and leather washers.

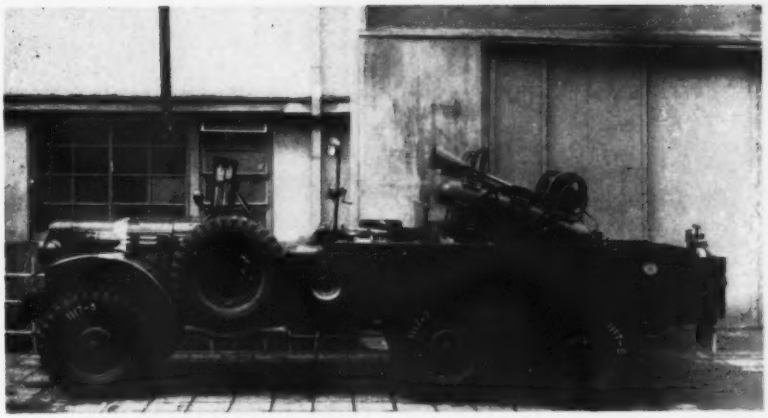
In 1946 most paid fire department personnel were furnished with uniforms many of which had been cast off by the police. We found no firemen's uniforms less than four years old and some had been issued twelve years previously. Firemen furnished their own shoes and, since leather shoes were practically unobtainable on the Japanese market, they were forced to wear canvas rubber soled shoes and sneakers, old leather boots, and worn out leather shoes which were frequently unmatched. As a result, any group of Japanese firemen, even in the large cities, presented a sorry sight.



Mr. Angell is shown here beside a 1920 model American LaFrance 1000 gpm pumper which was in service at Kyoto in 1946.

Hand-operated pump provided for civil defense during the war, a type now used by many volunteer departments in villages.

In 1946 the fire department in Sendai, population 238,250, featured this type of mixed uniform.



Weapons Carrier purchased from the United States Army and equipped with CO_2 and vaporizing liquid extinguishers.

AS indicated, very few cities were provided with public fire alarm systems. Fire department telephones were part of the police communication system and many of these were badly damaged by the air raids. In order to report a fire by telephone it was necessary for the person to run to a police box, call police headquarters, and they in turn would notify the fire department, providing the system was in operating condition. When fire was discovered visually, the station was notified by phone from the lookout towers. By that time the fire usually had burned through the roof and the building was doomed before the fire department could arrive. It may be pointed out here that the Japanese Criminal Code provides a fine or imprisonment for any person found guilty of causing a fire through his own negligence, and, since police investigate every fire, arrests were made in nearly fifty percent of the cases. Because of the inconvenience of being arrested and questioned by the police, many people try to extinguish the fires and fail to call the fire department until fires are beyond control.

Reasonably good building codes were adopted in 1919 but before they really became effective, the great earthquake of September 1, 1923 destroyed huge sections of Tokyo and Yokohama. These codes were nullified and people were allowed to build almost without restriction. Flimsy wooden structures were packed along narrow streets which made excellent targets for the air raids of 1944-45. Not only Tokyo and Yokohama, but many other cities were more than half-destroyed. Again no restrictions were placed upon building. Lightly-constructed wooden stalls sprang up in many areas of all Japanese cities. Houses were erected in more congested pattern than they were before the air raids.

ALTHOUGH modern fire prevention and fire protection definitely present challenges for many kinds of engineers, and courses in fire protective engineering are available in some of the American colleges, very few college trained men were found in this field in Japan. There was no organization similar to the Underwriters' Laboratories for the testing and approving of fire safety devices. They had no groups such as our National Board of Fire Underwriters or our National Fire Protection Association, both of which furnish a much needed public service for fire prevention and fire protection in the United States. Only fifteen Japanese companies were writing fire insurance. All belonged to the Fire and Marine Insurance Association, yet no fire prevention inspections were made of industrial or mercantile properties.

In all of Japan only three hundred buildings had been provided with automatic sprinkler systems prior to the war. Much of the sprinkler equipment had to be imported and the rate reductions offered were not attractive to owners of plants or buildings. At the war's end, one hundred and fifty-five of these systems were in service or repairable, while the others had been destroyed.

Such were the conditions as they existed in Japan when the Fire Branch came into being in 1946.

Wanted—Fire Protection Engineering!

These four pictures show the same area in downtown Fukui (46,000 population). (Above) Top picture shows the destruction that occurred during an air raid on the city. Next picture was taken nine months later and shows lack of city planning or effective building codes. (Below) Top picture shows the same area immediately following the earthquake and fire of June, 1948. Bottom picture was taken three months later Intersecting main streets have been widened but again there is no application of building codes or other control of construction.

The Los Angeles County Fire Department

THE chances are that if an average fireman was asked to name the three largest fire departments on the West Coast he would overlook at least one of the top three. He might guess the Los Angeles and San Francisco city fire departments for the No. 1 and No. 2 spots, but might not be aware of the great Los Angeles County Fire Department. This outstanding fire force protects 2277 square miles of territory with 847,947 population and 1 billion, 20 million dollars of assessed valuation as its primary responsibility. The Los Angeles County Fire Department with a current budget of $6,000,000 has a full-paid personnel of 1,000, providing for some 90 fire companies equipped with the finest of fire apparatus. Incidentally, 45 of the county fire department stations have NFPA memberships.

The organization of the Los Angeles County Fire Department is somewhat unique. It is part of an extensive conservation program headed by Spence D. Turner who is Chief Engineer of County Fire Protection Districts as well as County Forester and Fire Warden. (Chief Turner is a member of NFPA Civil Fire Defense and Forest Committees). Cecil R. Gehr is Chief Assistant Forester and Fire Warden and Deputy Chief Engineer. There are nine organized fire protection districts, including one huge consolidated district organization. These protect some 246 square miles of the more populous areas of the county that are not protected by any of the 45 municipal fire departments also located in the county (including the Los Angeles City Fire Department). In addition to the fire district areas, the County Fire Warden is charged with extinguishment of all fires in the extensive unincorporated territory of the county, as well as the enforcement of fire prevention ordinances in such territory.

Extensive mutual aid plans are in operation between the county and municipal fire departments. In certain border-line areas both county and municipal fire departments may respond on initial alarms, or assist as needed at certain multiple alarm fires. County fire district companies answered 172 alarms in 25 cities, including Los Angeles City, last year.

Under the Los Angeles County Disaster Relief Authority, the County Fire Warden is "Chief of the Disaster Fire Service." The communications center of the County Fire Department is prepared at all times to operate as coordinating agency between various fire departments in Los Angeles County and with adjoining counties. Under the California Civil Defense Plan, Chief Turner is also Regional Fire Coordinator of Region 9, consisting of Los Angeles and Orange Counties.

THE Los Angeles County fire fighting forces are organized into ten battalions divided into two major groups. There are six battalions and 560 men manning 53 engine companies (plus ladder and rescue companies) protecting the organized fire protection districts. They are headed by Assistant Fire Chief Ted C. Loggins. These battalions also include three fire companies protecting large county institutions.

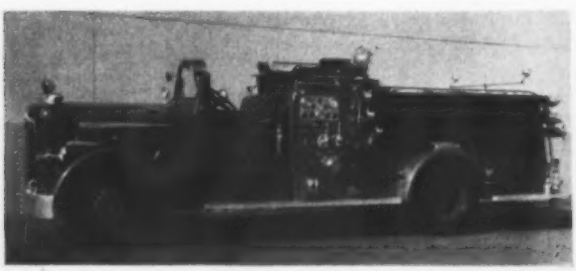
The other four battalions with 24 engine companies with 184 men assigned are called "Mountain Battalions" and are commanded by Assistant Chief O. M. Thurston. These companies are organized with special emphasis upon forest and brush fire fighting. There are also a number of partly paid fire companies protecting outlying communities. Several of these have paid apparatus engineers assisted by firemen paid on a basis of work performed. Also under Chief Thurston's command is Engine Co. 90 protecting famed Catalina Island, which is part of Los Angeles County.

In the ten organized battalions of the County there are 347,888 structures to be protected. These include 240,169 dwellings and cabins, 93,791 commercial buildings, 1797 oil tanks, 698 oil derricks, 313 hospitals and sanitariums, 514 schools, and 4217 apartments and hotels.

Due to the varied activities of this department, Bureaus and Divisions are relatively more extensive than those found in the average fire department. They include those of office management, construction (including firebreak construction and maintenance), fire prevention, forestry, intelligence, mutual aid, training, personnel, and service of supply. In addition, special officers are assigned to cartography, communications, detention camps, photography, and weed abatement. Chief G. R. Taylor is mutual aid and training officer and C. J. Thrapp is fire prevention engineer.

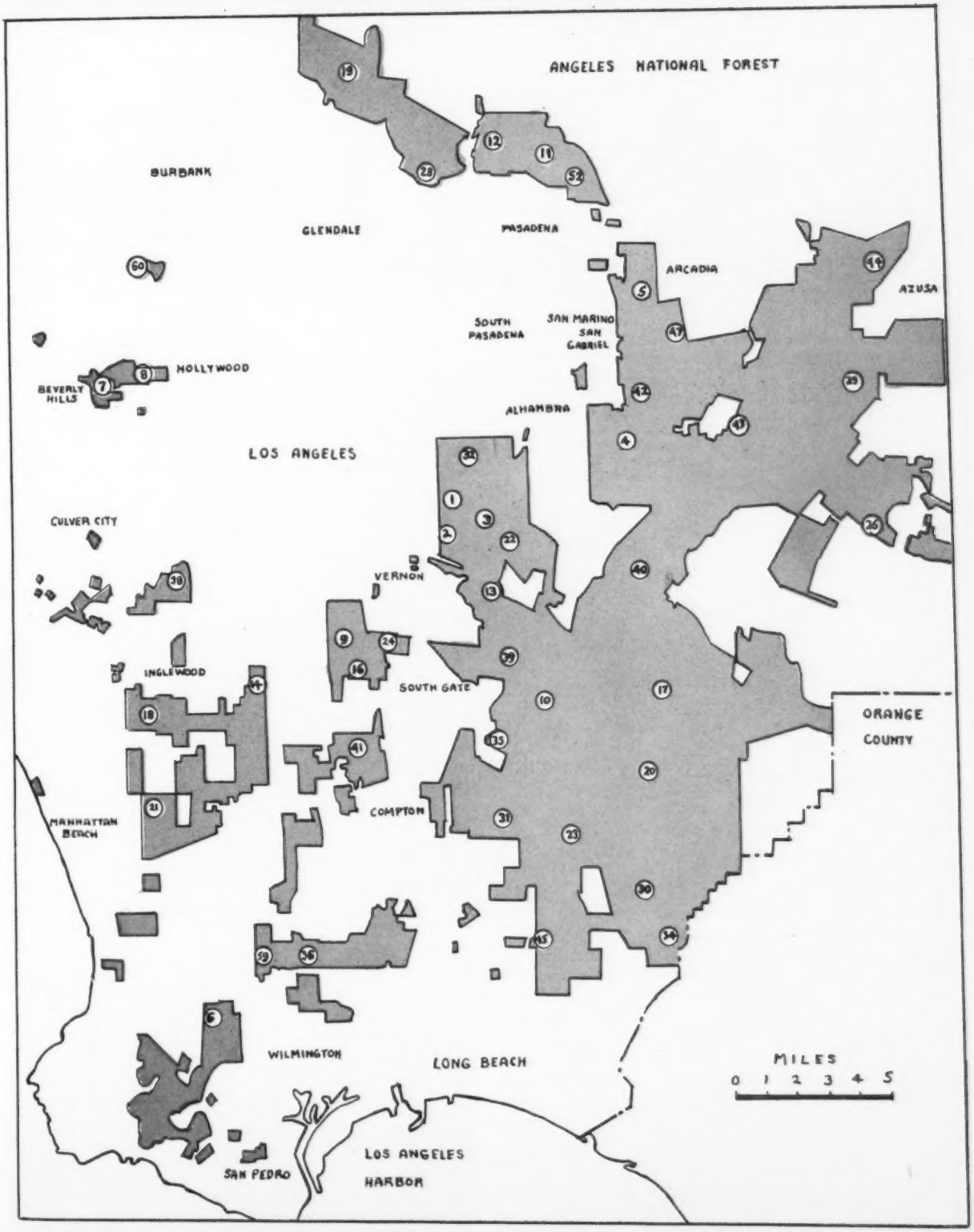
All 90 fire companies are equipped with radio, mostly FM type, and controlled from four separate radio transmitters. Additional communication facilities are provided by departmental telephone lines of several hundred miles, which carry a teletype channel, as well as voice transmission. The industrial district of East Los Angeles has the latest type of Gamewell fire alarm equipment. *(please turn to page 12)*

General Pacific 1000 gpm pumper with 500-gallon water tank delivered in 1950. Has 2 reels of high pressure booster hose, 1200 ft. of 2½-in. hose, 600 ft. 1½-in. hose.



A 1000 gpm Seagrave pumper in front of a typical bungalow station housing engine and rescue companies. Fire stations are built to three standard designs.

Los Angeles County Fire Protection Districts



LOS ANGELES COUNTY FIRE PROTECTION DISTRICTS. The tinted areas show the fire protection districts of the Los Angeles County Fire Department. While most of the organized fire districts are shown, this map presents only the more congested south-central portion of the county. The approximately 1,000 square miles of territory shown includes about 240 square miles of organized county fire protection districts. The locations of some of the communities protected by separate municipal fire departments are also indicated. Not shown, are some 3,000 square miles of additional territory also within Los Angeles County boundaries. The County Fire Department has primary responsibility for two thirds of this vast area not protected by municipalities or by Forest Service forces. Fire station locations shown on the map are those housing one or more full paid engine companies. Seven of these stations have two engine companies and ten also have rescue squads. Many of the fire stations have been erected in the past two years.

Universal Pictures Co. Inc., photo

The Universal City Fire Protection District, County Engine Co. 60, shown above is rather unique in that it is financed by a single corporation, and protects only the property of the corporation which is the Universal-International Pictures, Inc. The district has one engine company manned by a captain, engineer, and three firemen on each shift. One fireman patrols and inspects the various buildings and sets throughout the studio grounds. The hazards are varied in this particular district, ranging from grass and brush fires to large structural fires. There are many other hazards caused by the use of chemicals and explosives in the making of pictures; however, fire losses have been held to a minimum due to inspections and good cooperation from studio officials.

During the last fiscal year the fire companies responded to 7,947 alarms, of which 597 were false. 6,043 were fires, of which 1,538 involved structures, causing fire loss amounting to $1,627,875. A total of 921 rescue calls were answered by the Department's ten rescue squads, or by three engine companies equipped with resuscitators and other rescue squad equipment.

Although there are 7631 hydrants in the county fire districts, water supply in such an extensive area as Los Angeles County presents a major fire protection problem. Accordingly, most of the new pumpers in the fire districts carry a 500-gallon water tank in addition to a 1000-gpm pump. The tanks supply two reels of booster hose, plus four pre-connected lines of 1½-in. hose. Fire apparatus assigned to the mountain battalions have 600 gallon tanks. In addition, the department has placed in the mountain areas, 181 stationary water tanks of standard design. These hold a total of 1,347,500 gallons. The department also has five strategically placed reservoirs holding 1,016,977 gallons of water.

In the brush covered mountain areas the Construction Division has built and maintained 370 miles of roads, 190 miles of firebreaks, and 81 miles of trails.

The County Fire Department's Fire Prevention Bureau carries on a very active program with 8 captains and 3 inspectors assigned on an area basis and with 2 assigned to oil field and flammable liquid hazards. The Fire Prevention Bureau also has an extensive Weed Abatement Section charged with removing hazardous growth that could endanger improved property. The Weed Abatement Section made 103,700 inspections last year. Department employees cleared weeds from 16,103 parcels of land (which, incidentally, produced more than $100,000 in revenue) and 23,070 parcels were cleared by owners after posting by inspectors.

One of the most effective procedures of the Fire Prevention Bureau is the referral of new business license applications to the bureau by the tax collector. This is done in some 33 different occupations including apartment houses, hotels, theatres, mercantiles. These are

New fire station of reinforced concrete construction in West Hollywood area cost in excess of $125,000. In front of station is new 85-ft. aerial built by American-LaFrance Foamite Corp.

required to have a fire safety clearance prior to the issuance of the license. This procedure has been effective in eliminating poor housekeeping conditions.

The fire prevention program includes extensive fire safety educational activities in the schools. Inspection of residential and light commercial occupancies was carried on by all radio equipped engine companies. Another important function of the Fire Prevention Bureau is the organization and training of plant fire brigades in the many vital defense industries in the unincorporated area of Los Angeles County.

This report would not be complete without mention of the Forestry Division which maintains a tree nursery. Seeds for 90 species of trees are on hand as well as more than 40,000 potted seedlings. These are used to cover burned areas and for erosion control along the canyon highways. More than 12,000 seedlings are potted at various fire stations each year, for distribution to the public for use in mountainous areas. The importance of this reforestration program is borne out by the fact that last year outside of the organized county fire protection districts, 6400 acres of watershed, grain and pasture land in the county was burned over with watershed damage estimated at $581,337 not including damage to improvements of $571,184.

A number of the tanker-pumpers carry a 30- or 35-ft. extension ladder. Shown below are small lines carried connected to rear outlet gates.

Detroit, Michigan, Will Be Host to the 55th NFPA Annual Meeting

May 7-11, 1951

Shown above is the Statler Hotel in Grand Circus Park in Detroit which will be the headquarters for the 55th NFPA Annual Meeting.

(*See* FIREMEN *for April, 1951*)

Fire Department Headquarters in Detroit is located at the northeast corner of Wayne and Larned Streets. The first floor houses Ladder No. 1, Engine No. 1, Rescue No. 1, High Pressure No. 1, a water tower, ambulance, and chiefs' cars. Dormitories for the personnel of these companies are on the second floor. The third floor houses the administration offices and the offices of Chief Higby and his assistants. The Fire Prevention Division and Medical Division are located on the fourth floor. An auditorium with a seating capacity of 700 is on the fifth floor.

AS announced in the last issue of FIREMEN, Detroit, Michigan, will be the host city to the 55th NFPA Annual Meeting. It promises to be one of the most active and interesting meetings in years.

Detroit this year is celebrating the 250th anniversary of its founding and has many points of interest to offer to visitors. A local committee of representatives of the Detroit Fire Department and other NFPA members have arranged some interesting tours to the leading automobile plants and other places to give NFPA members and guests of the Annual Meeting an opportunity to see industrial fire prevention and fire protection in action. There will be special events and tours for the ladies.

Shown on this page are some of the buildings that house the Detroit Fire Department. Headed by Chief Ninnian C. Higby, this organization is one of the largest and best in the United States. It possesses a world-famous Fire Prevention Bureau under Fire Marshal Edward W. Hall, Chairman, NFPA Fire Marshals' Section, and a member of several other NFPA committees including Civil Fire Defense.

Governor Youngdahl of Minnesota will address the FIRST GENERAL SESSION of the 5-day program on Monday evening. Some of the other speakers to appear during the week include H. M. Smith, Inspector of Fire Services, British Home Office, London and Major General F. F. Worthington, Canadian Civil Defense Coordinator, Ottawa.

THERE will be many other interesting sessions and section meetings to attend. A CIVIL DEFENSE FORUM will feature some of the top authorities in the country. Chief John H. Alderson of Los Angeles, President, International Association of Fire Chiefs, and a Director of NFPA, will speak at the session on MUNICIPAL AND RURAL FIRE PROBLEMS. There will be meetings of the Fire Marshals', Railroad, and Electrical Sections, and sessions on Flammable Liquids and Gases, Public Education and Publicity, Transportation Fire Problems, and Fire Extinguishment. An evening will be devoted to motion pictures on fire subjects.

Both volunteer and paid firemen will be most welcome at the Annual Meeting.

Below are two views of the Detroit Fire Department Training School at West Warren and Lawton Avenues. The building was recently remodeled to accommodate an engine company and a ladder company for regular fire service in the neighborhood, in addition to the training apparatus at the school. This was done to permit integration of training techniques with practical fire fighting. Fire fighters in training at the school respond to certain fires with the companies at this station. Men eligible for promotion can be assigned to these companies and receive training in the routines of company command. Training records influence fire fighters' eligibility for advancement.

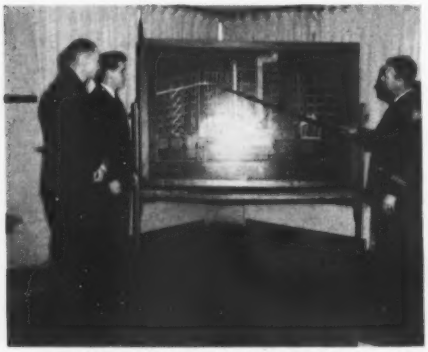
Norfolk Fire College Officers' Training Course

THE Norfolk, Virginia, Fire Department, headed by Chief R. L. Woolard, conducts a training course for company officers at the Norfolk Fire College

Also fire fighters who aspire to learn better firemanship and departmental procedures are given an opportunity each year to attend the officers' training course and receive instruction from the deputy chiefs and other top officers of the Norfolk Fire Department. Last year, 42 captains and 26 firefighters attended.

Subjects include administrative procedures, care of apparatus and equipment, pump operation, methods of fire fighting, fire prevention, leadership, personnel procedures, and similar topics. Guest speakers from the fire service add variety to the training program.

ONE method of instruction that has been found effective in the Fire College is in the "sizing up" of simulated fires. Fires of varying degree are assumed to have involved some of the larger buildings in Norfolk. The class is given the experience of analyzing the hazards in the buildings and how they would attack each type of fire.



Deputy Chief K. W Sykes of the Norfolk Fire Department is shown giving instruction on a simulated fire in the Atlantic Hotel.

Besides being a site for the training of students in modern fire fighting, the drill tower carries a fire prevention message.

Students at the Norfolk Fire College are shown receiving training in lowering an injured person from a building.

Entire Philadelphia Fire Department Radio Equipped

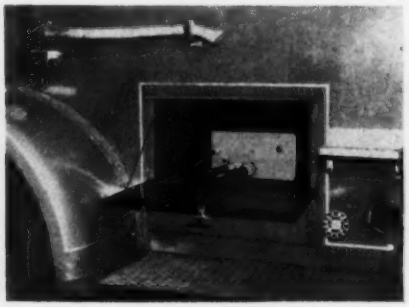
EVERY fire company in the Philadelphia Bureau of Fire headed by Chief Engineer John C. Cost is now equipped with two-way mobile FM radio. The new radio system was built and installed by the Radio Corporation of America at a cost of $87,000, under direction of the City's Electrical Bureau.

The installation includes two complete transmitting stations located 2½-miles apart to provide protection against possible air attack. One station is located in the Electrical Bureau's communications room in city hall, with a dual antenna mounted atop the famous Penn statue on city hall tower The second station is located in a new Electrical Bureau radio shop at 46th and Market Streets and has a 250 ft. antenna tower. Each of the stations are provided with two RCA 250 watt transmitters, and six station receivers. Transmitting frequencies are 170.15 megacycles and 154.01 megacycles.

The station in the communications room at City Hall is located in a pentagonal, sound-proofed, glass enclosed booth overlooking the fire alarm operators' control panel (see NFPA FIREMEN, July 1950, page 10). There are intercom switches connecting the fire alarm board and the remotely operated transmitter in the tower. The transmitting room is of fire resistant construction. Radio operators serve under the direction of Superintendent of Fire Alarm and Radio Systems Frank O. Schierff.

Below: A radio equipped hose and booster truck showing fireman reporting to headquarters. *Center:* Radio control station overlooking fire alarm control board in city hall.

Below: Typical installation of RCA "Super Carfone" 30-watt single unit transmitter-receiver radio equipment in special compartment on a fire truck.



Winners of the First Fire Foto Contest of the Year

SHOWN on this page are the winning photographs in the first Fire Foto of the Year Contest sponsored jointly by the National Fire Protection Association and the National Press Photographers Association. Awards will be made at the 55th NFPA Annual Meeting in Detroit, Michigan.

This contest, open to all press photographers in the United States and Canada, was judged in one class: fire photos, following the point system devised by the NFPA. Judges for the 1950 contest were: Harold Blumenfeld, Editor, Acme Newspictures; Joe Costa, Chairman of the Board of the National Press Photographers Association; William C. Eckenberg, New York *Times;* Melvin R. Freeman, Public Relations Manager of the NFPA; and Sid Mautner, Executive Editor, International News Photos.

Another Fire Foto contest is planned for this year — same rules, same awards. All requests for information and entries are cordially invited. Address Melvin R. Freeman, National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts.

1st Prize $250

Reginald McGovern, member of the National Press Photographers Association and photographer of the Redwood City Tribune, Redwood, California, won first prize with this picture of an explosion during a chemical plant fire at San Carlos, California. McGovern had only one unexposed holder left and had used one side of it for a general record view of the fire. Then he cocked the shutter, pulled the slide, and waited for activity. The resultant picture placed second in the recent world wide Encyclopaedia Britannica news photo contest and was voted best of the show in the California Associated Press news photo contest.

2nd Prize - $75

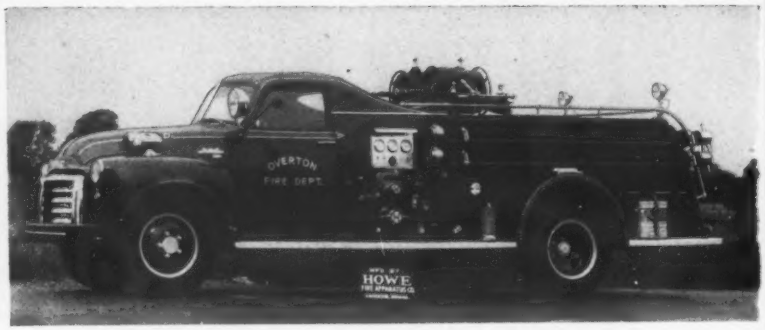
Frank Riemer, Jr., of the Milwaukee *Sentinel*, youngest photographer in Milwaukee, Wisconsin, heard the alarm of this fire on his radio. When he arrived on the scene he assured the trapped people that help was coming, directed firemen to the rescue and got a prize-winning picture.

3rd Prize - $50

Edgar M. Sachs, photographer of the Lancaster, Pennsylvania, *New Era*, saw his "Childhood's Dream Come True" after children had been marched safely out of a burning school and when excitement had abated, they suddenly realized there would be "no school tomorrow."

Honorable Mention

Five pictures received honorable mention awards. The picture at left was taken by Joe Goulart, staff photographer of the Wichita *Eagle*, Wichita, Kansas; bottom pictures from left to right were taken by Donald Krohn, Wisconsin Rapids *Daily Tribune*, Wisconsin; Ted Kell, of the New York *Herald-Tribune*; Tony Spina of the Detroit *Free Press*; and E. T. Dumetz of the Charleston, West Virginia *Gazette*.



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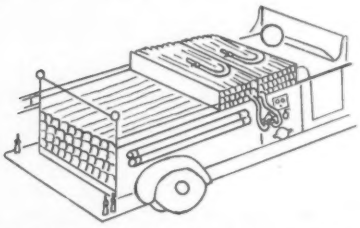
HOWE FIRE APPARATUS COMPANY, 1406 West 22nd Street, Anderson, Indiana

Pre-connected 1½ in. Quick Lines

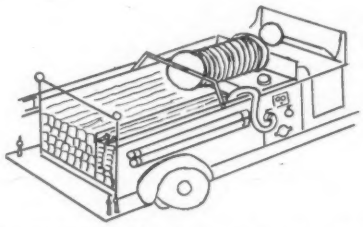
by Warren Y. Kimball

AS pointed out in the April issue of FIREMEN there are a number of ways in which 1½-in. lines can be carried pre-connected to permit instant operation as quick lines supplied from the booster tank while a hydrant connection is being made. To supply two 1½-in. lines simultaneously at least a 2-in. connection is needed between the booster tank and pump and also at least a standard 150 gallon water tank for city pumpers where hydrants are closely spaced. A 300 gallon tank is recommended for pumpers in suburban and rural areas where water supplies are more limited.



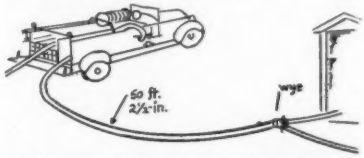
ONE method is to have small hose boxes constructed across the top of the main hose body to accommodate approximately 50 ft. of hose in each layer so that a box deep enough for 3 layers of 1½-in hose would provide 150 ft. in each line and a box with 4 layers would carry 200 ft. The hose boxes should be open at each end so that the lines can be run quickly in either direction. The female butt of each line is connected to a gated wye attached to a 2½-in. pumper outlet. The hose is loaded snugly in the boxes accordion style so that it will not come loose but will play out in either direction. The nozzle ends of the lines are carried on top of the hose load where they may be reached conveniently.

With this load the pump operator can tell which of the 1½-in. lines are out and he will know whether to charge No. 1 or No. 2 lines, or both. Some departments like to carry 50 ft. more hose in one of the lines (so that there will be a longer line to cover the rear positions at a fire) and a short line for use where fires can be safely approached more closely.



WHERE the hose body already has a 1½-in. compartment but no piped outlets and gates for 1½-in. leader lines, this deficiency often can be overcome by connecting the two 1½-in. lines to a wye attached to 50 ft. of 2½-in. hose. The female butt of the 2½-in. line is carried over the end of the hose body and connected to a 2½-in. pump outlet gate at the operator's panel. The 2½-in. hose is flaked flat on the bottom of the 1½-in. compartment and arranged so that the gated wye will pull out without turning around. The 1½-in. leader lines preferably should be flaked flat, with the two lines extending upward side by side, so that they will readily play out.

The nozzle is carried on top of each line but should be placed far enough from the open end of the hose body or otherwise secured so that the lines cannot possibly fall off while the truck is en route to the fire. If it is likely that no one will be riding on the back step, the two leader line nozzles can be secured to the side rail with a rope hose tool which can also be used by the hoseman who advances the line.



This method of carrying 1½-in. hose has the advantage of using a big supply line from the pump to the front of the building, reducing the friction loss by 8 or 10 lbs. However the large diameter hose may take a few seconds longer to charge with some pumpers. The 1½-in. outlet gates of the gated wye can be left closed and the 2½-in. line may be promptly charged to the gate, leaving it to each hoseman to charge the 1½-in. line that he intends to use, or the gate can be quickly opened by the operator on signal from the hoseman.

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The Fire Squad at Antioch College

by Kenneth W. Kreitner, Chief
Antioch College Community Fire Committee

UNTIL last year the student fire squad at Antioch College, Yellow Springs, Ohio, had little organization and little equipment. The latter consisted primarily of three big ladders and two hose carts. All equipment had to be carried or dragged to the scene of a fire by the fifteen members of the squad. This caused so much labor that when we got to a fire we were too tired to do any effective fire fighting. We decided to mechanize by purchasing a second-hand pick-up truck to carry our equipment.

We were lucky in having the Atomic Energy Commission give us a surplus weapons carrier of ¾ ton rated capacity. By installing used coil springs we were able to put almost twice that load on it. With a cash outlay of a little over a thousand dollars we have equipped the truck with a front-mount Darley Type H pump with a capacity of 100 gpm and 500 lbs. pressure, 300 ft. of 2½-in. hose, 200 ft. of hard rubber booster line on a reel, 450 ft. of 1½-in. hose, 200 gallon water tank, 80,000 candlepower searchlight, two spotlights, several "Indian" pumps, and grass fire fighting tools.

Future plans call for additional 1½-inch hose, protective clothing, salvage covers, and miscellaneous minor equipment.

It may seem that we have a deficiency of 2½-in. hose on the truck but we use it only for soft suction to supply our 100 gpm pump from a hydrant. Our pump has one 1½-in. outlet on which we mounted a gated wye. We can quickly lay a supply line from hydrant to fire building and thence into the building with three small lines. In spite of its size, the pump will throw a surprisingly large cloud of fog on two 1½-in. lines and the booster line. We feel that since we are designed for a first aid stop-gap service until the village fire department arrives, we can be more effective with the small lines and fog.

In addition to the buildings on the campus, we protect 1000 acres of wood and grass land. The power and mobility of our truck makes it ideal for fighting such fires. Since we can run and pump at the same time, we can literally drive right over a grass fire by mounting two fog nozzles directly on the Y-gate of the pump. This feature caused the village fire department to ask us to be on call. Their apparatus cannot move and pump at the same time.

Another feature of the truck is its ability to get around in snow and mud. At times of heavy snow ours has been the only fire truck capable of moving.

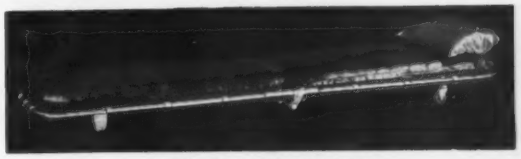
PERHAPS the most interesting feature of the whole plan is the fact that it has been initiated and carried out solely by students. We did all the work of reorganizing and planning. All of the work was done by students with the exception of welding the steel water tank. This was done by college maintenance men. The rest of the work on the pump was done by the writer as a senior engineering project.

Since we have to drive through woods when fighting forest fires in "Glen Helen," the college woodland, we decided not to mount ladders on the truck. We plan to use an old airplane frame to form the body of a ladder trailer. Actually, this is a very simple task.

The snapshot shows the truck as it was last Christmas. Additional work has been done since then.

Although by no means high-class as a fire fighting unit, our truck shows what a little hard work can do. It serves as an aid to the regular fire department in the village and can do things that regular trucks are not designed to do.

"Run up and ask Mother to turn off the iron."
Reprinted from *Collier's* Virgil Partch



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Membership Report

Fire Department Membership in the NFPA costs $12.50 per year. Through this membership, fire departments and fire chiefs receive six subscriptions to FIREMEN, plus single subscriptions to the NFPA QUARTERLY and the monthly FIRE NEWS. Additional subscriptions to FIREMEN cost $1.25 each and are available only to NFPA members. Individual members who are in the uniformed fire service receive single subscriptions to the above publications.

NFPA Welcomes:

The following organizations as NFPA Fire Department Members. Total membership has now reached 1,479 fire organizations and 20,891 men.

Alabama: Hamilton Volunteer Fire Department, Hamilton.

California: Norwalk State Hospital, Norwalk; Santa Barbara County Forestry Department, Santa Barbara.

Illinois: Robbins Fire Department, Robbins; Forest River Volunteer Fire Department, Mount Prospect; Round Lake Volunteer Fire Department, Round Lake.

Indiana: Noblesville Fire Department, Noblesville; Warsaw Volunteer Fire Department, Warsaw.

Iowa: Pocahontas Fire Department, Pocahontas.

Kentucky: Morehead Fire Department, Morehead.

Louisiana: Elton Fire Department, Elton.

Maryland: College Park Volunteer Fire Department, Inc., College Park.

Minnesota: Hinckley Volunteer Fire Department, Hinckley.

Missouri: Columbia Fire Department, Columbia; High Ridge Community Fire Association, High Ridge.

Montana: Meaderville Volunteer Fire Department, Butte.

New Jersey: Rutherford Fire Prevention Bureau, Rutherford.

New York: North Babylon Fire Department, North Babylon; Speculator Volunteer Fire Department, Speculator.

North Dakota: McClusky Volunteer Fire Department, McClusky.

Ohio: Norwalk Fire Department, Huron.

Oregon: Odell Volunteer Fire Department, Odell.

Pennsylvania: Leacock Fire Company, Leacock; McDonald Volunteer Fire Department, McDonald; Millersburg Fire Company No. 1, Millersburg.

Rhode Island: Lymansville Fire Department No. 1, North Providence.

Every member receives a handsome membership certificate illustrating the history of fire protection.

South Dakota: Chief Andy Harris, White River.

Texas: Killeen Volunteer Fire Department, Killeen.

Virginia: Chief J. N. Farmer, Petersburg.

West Virginia: Charleston Fire Department, Fire Prevention Bureau, Charleston.

Canada

Quebec: Village of Sutton Fire Department, Sutton.

Survey of Firemen's Training Conducted for New York City

CHIEF JAMES W. JUST, Director of Fire Service Extension for the University of Maryland, and Vice Chairman of the NFPA Committee on Firemen's Training, has been commissioned by the Mayor's Committee on Management, surveying various departments of New York City, to make a study of the New York Fire Department training program and make recommendations for extension and improvement of the firemen training program. The survey of the fire department training was begun in March and was expected to take at least a month.

"TRUMPET" QUADWAY NOZZLES INVITE ON-THE-JOB COMPARISON

Again this year, departments from coast to coast are adopting the Quadway as standard nozzle equipment.

And there's a good solid reason for this continuing trend.

Their change-over policies are based on actual service comparisons. They have found something more than just a dependable, smooth operating, conventional nozzle. The Trumpet Quadway is the one nozzle that gives them every kind of stream they need — on a moment's notice. A solid straight stream, a dense, smothering fog mist that is adjustable, or a combination of both to any varying degree.

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Civil Defense Organization for Apartments, Office and Loft Buildings

THE distribution of three Civil Defense Manuals in New York City was started last month by the Commerce and Industry Association of New York, Inc. These pamphlets outline procedure for setting up effective control organizations in apartment buildings, office buildings, and industrial and loft buildings, respectively, and were prepared by a Civil Defense Committee of the Commerce and Industry Association of New York. The manuals have been officially approved by New York's Civil Defense Director Arthur W. Wallander.

The principal recommendations prescribe duties and responsibilities of designated building personnel, including wardens, first aid and rescue workers, first aid fire fighters, maintenance men and messengers. Recommended facilities are prescribed, including alarms, shelter areas and signs, first aid stations, fire fighting equipment, lighting, and details of accommodations for people.

In ordering the manuals address the Commerce and Industry Association of New York, Inc., 233 Broadway, New York 7, N. Y. and specify whether you wish the manual covering (1) Apartment Buildings, (2) Office Buildings, (3) Loft Buildings. Send 15 cents for each pamphlet.

Teachers' Guide to Safe Use of Electrical Equipment

THE National Education Association has issued a 36-page pamphlet entitled "Safe Use of Electrical Equipment" which is designed to help high school teachers instruct students in the safe and proper use of electrical equipment found in the home.

Fire departments also will find this a useful guide in the presentation of fire prevention talks by department members on electrical fire safety.

The pamphlet is available from the National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C. for fifty cents per copy with reductions for quantity orders.

Florida Fire College To Begin Weekly Sessions

THE weekly sessions of the Florida Fire College will begin May 7, 1951. There will be three definite courses of training, namely, basic, advanced, and special. Upon completion of each unit of training students will be awarded certificates, and diplomas will be awarded upon completion of all units of the basic or advanced courses.

A separate course of training will be offered for volunteer firemen and will include a part of each of the six units of the basic course in the Fire Service Training. The course is entitled "Field Service Practices" and will consist of 30 hours of training.

Any fireman, paid or volunteer, may take any unit of training he desires, including the unit for volunteer firemen.

A list of hotels and other information may be obtained by writing to W. H. Barnett, Florida State Fire College, Ocala, Florida.

Fire Schools in 1951

Illinois: The Illinois Fire School will be at Champaign June 19–11.

Iowa: The Twenty-seventh Annual Iowa Fire School will be held at Iowa State College, May 15–18.

Kansas: The Kansas Fire School will be at Hutchinson October 22–25.

Kentucky: The Kentucky Fire School will be held at Lexington June 4–7.

Michigan: The Michigan Fire School will be held at Ann Arbor June 19–22.

Missouri: The Missouri Fire School will be held at Columbia June 8–9.

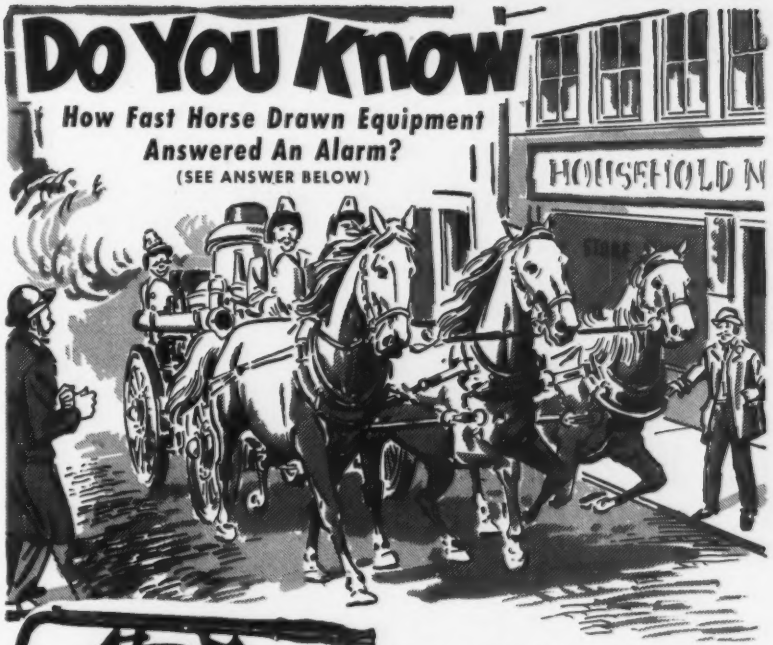
Montana: The Twelfth Annual Montana State Fire School will be held at Polson September 5–8. (Tentative dates.)

New Mexico: The 1951 Fire School and Convention will be held at Hobbs, May 14–16.

Ohio: Sixth Annual Short Course in Fire Administration will be held at Ohio State University June 12–15.

Pennsylvania: The Thirteenth Annual Pennsylvania Fire School will be held at Lewiston, August 6–10.

South Dakota: The South Dakota Fire School will be held at Pierre, June 18–22.



ANSWER: Veteran fire fighters agree that these highly trained horses charged from their stalls, were in harness and off to the fire in *LESS THAN HALF A MINUTE* after an alarm was received.

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Modern, up-to-date fire truck with **INDIAN FIRE PUMPS** mounted in place.

Photo courtesy H & H Truck Tank Co., Jersey City, New Jersey

Today's fire departments, foresters, lumbermen, campers and private citizens find INDIAN FIRE PUMPS the answer to their need for speedy fire fighting.

A man with one of these famous back-pack extinguishers won't lose a minute attacking fires on roofs, in fields, brush, in buildings, rooms or rubbish. When seconds count—use INDIANS.

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600 Spring Street
Klamath Falls, Oregon

Titan Chain Sawe, Inc.
3700 Fourth Avenue South
Seattle, Washington

L. H. Curtis & Sons
436 West Third Street South
Salt Lake City, Utah

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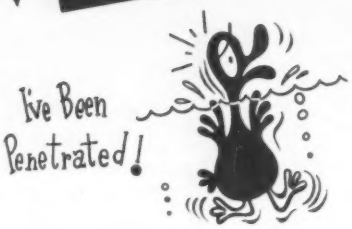

FIREWATER* is the tested and proved chemical penetrant that actual laboratory tests have proved to be no more corrosive than distilled water... that is used at a dilution rate of 1:600 for maximum effectiveness... that is unconditionally guaranteed!

That's the story that is putting **FIREWATER** in a class by itself among "wet-water" compounds. **FIREWATER** will do the job — safely, efficiently, *and* economically.

Write *today* for more details — and for *free* diagram of simply made, low-cost proportioner you can make yourself.

FIREWATER COMPANY
Number 1 First St.
Los Altos, Calif.

Please send me full information on **FIREWATER** and FREE proportioner diagram.

NAME.....

ADDRESS.....

CITY and STATE.....

The FIREWATER Co.

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LOS ALTOS, CALIF.

* Trade Mark

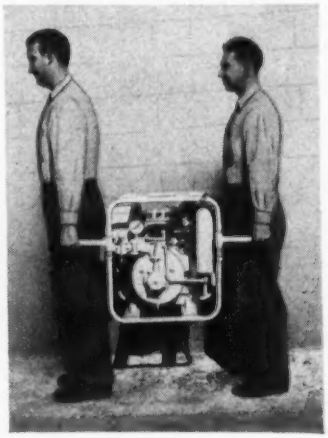
Recent NFPA Publications

Ready for distribution are two paper-bound, pocket-size editions of National Fire Codes, designed especially to fit the inspector's pocket for handy reference in the field. The eleventh edition of the **Building Exits Code** which supersedes the tenth edition, published in 1949, and which is incorporated in **Volume III** of the **National Fire Codes** entitled **"Building Construction and Equipment,"** has been published as a separate volume to meet the great demand for this important reference material. 136 pages, $1 per copy. . . . The pocket-size **National Electrical Code** has the complete official text of **Volume V of the National Fire Codes** but does not contain the supplementary material appearing in the deluxe edition and without advertising. 412 pages, $1 per copy. . . . **For desk reference material** there are the three new volumes of the **National Fire Codes** which have recently been published. **Volume III,** mentioned above, contains a compilation of NFPA standards on building construction and equipment. Subjects covered include life safety from fire, restricting spread of fire, chimneys and smoke pipes, building equipment, building details, occupancy standards, storage, construction operations, fire tests, and historical standards. 720 pages, $4 per copy. . . . **Volume IV, Extinguishing and Alarm Equipment** brings together 48 NFPA Standards dealing with automatic sprinklers, water supply, extinguishing and alarm equipment, municipal and rural protection, employee organization, and related features of supervision and maintenance. 788 pages, $4 per copy. . . . **Volume V is the 1951 National Electrical Code.** It includes extracts from 54 other NFPA standards affecting electrical appliances plus an advertising guide on approved equipment. 548 pages, $3 per copy. . . . **Two important studies** on rural fire protection, Mr. John D. Rush's article on "State Legislation" and Mr. N. G. P. Krausz' analysis of "Fire Protection Districts in Illinois," both of which appeared in the January, 1951, NFPA Quarterly, have been reprinted in a single pamphlet. Thirty-five cents per copy, discount for quantities. . . . **Another Quarterly reprint** from the same issue is **"Large Loss Fires of 1950 and Their Lessons."** This 64-page publication contains analysis of more than 200 large-loss fires, is well-illustrated, and has nine tables of pertinent statistics concerning 1950 fire losses. Single copies $1, discount for quantities.

Hale Type FZZ

Fine For Relaying to Major Pumper . . . .

Easily Carried by 2 Men



Chief Leon Arnold of Newellton, La., writes . . . .

We have received from you your portable Pump, Type FZZ, which we are thoroughly satisfied with. We have only had to use it once since our purchase in September of last year, but it did a big pump job for 1½ hours through a 300 ft. line of 2½-inch hose branching off in a "Y" to two 1½-inch lines, 150 ft. each.

We carry this unit on our 500-gallon pumper to use in places where we can not get near enough to water. Two men can easily carry it any place.

We recommend the Hale FZZ Portable Pump for any Fire Department.

The Hale Type FZZ portable fire pumping unit pictured at top can be easily carried by two men to source of water which truck cannot reach, for refilling booster tank or for fighting fire direct. Unit is also available mounted on two truck-type wheels or on rubber-cushioned steel channels.

The unit can be mounted on virtually any apparatus, making it possible to fight fire while apparatus is in motion, using booster tank for source of water.

Capacity of FZZ is 60 G.P.M. at 90 lbs. pressure: 150 G.P.M. at 30 lbs. pressure. Provides two capable fire streams through 1½" hose lines, using ¼" nozzles.

Note: Discharge Adapter can be supplied for use with 2½" hose.

Ask for demonstration. No obligation

Write today for FZZ Folder to

HALE FIRE PUMP COMPANY

CONSHOHOCKEN, PA.

Fire Pumps in All Standard Capacities

"Invite a Carload"

THE Nebraska Volunteer Firemen's Association publishes an interesting monthly newspaper *Smoke-Eater*. One suggestion in the April 1951 issue is worth a trial by every volunteer fire company in the land. It would help to overcome any remaining taint of "provincialism" (the idea that the fellow in the next town is not quite as good a fire fighter as you are and is not as interested in the latest improvements of the fire service). We quote from *Smoke-Eater:*

"One department started something about six months ago that has proven a very successful and enjoyable program. Each month this volunteer department has sent an invitation to a neighboring town to send a carload of their members to be guests at the regular drill and monthly meeting. The visit is returned to the next meeting of the neighboring town.

"When the guests arrive each and every piece of equipment owned is shown and its operation explained. They observe the department drill and sit in at the business meeting and close out the evening with a 'let-down-the-hair' confab.

"You will be surprised at the new ideas you can pick up by visiting another department. Let the men in your department rotate the privilege of being the guest carload. This combined social and business visit gives every department an opportunity to exchange ideas and problems.

"Send out an invitation this month for a 'carload' of volunteers from some town to be the guest of your department. Then return the visit and let the results prove the value of this neighborly idea.

"P.S. — Don't forget to check similarity of hose threads when you go visiting. You never know when you may offer or request assistance."*

* *Even in states where 2½-in. fire hose threads must be National Standard in accordance with state law it is extremely common to find hydrant and pumper suction threads of different standards. It is also common to find that 1½-in. and booster hose threads are of different standards. This may be very important when working from water tank apparatus or portable pumps at a country fire.* — Ed.

An informative discussion of dry chemical fire extinguishing agents with particular emphasis on factors responsible for quality and dependability. . . . . by

ANSUL DRY CHEMICAL

CONTROLLED QUALITY FOR CONSISTENT DEPENDABILITY

Arthur B. Guise
Chief Engineer
Fire Extinguisher Division
ANSUL CHEMICAL COMPANY

Your extinguishers can fail to operate when you need them most . . . or operate with less than maximum effectiveness and fail to extinguish the fire . . . unless properly maintained and charged with dependable first quality extinguishing agents.

This is equally true of dry chemical fire extinguishers. Ansul *"PLUS-FIFTY"* Dry Chemical is produced under carefully controlled conditions to meet specific requirements. *This means that every container of Ansul Dry Chemical has the same uniform high quality.* Ansul Extinguishers are designed for use with Ansul Dry Chemical only and, if consistent high fire extinguishing effectiveness is to be obtained, Ansul Dry Chemical should be used for recharge purposes.

There are a number of factors influencing dry chemical quality and all must be controlled because variations in a dry chemical can affect its fire extinguishing effectiveness.

PARTICLE SIZE. The sodium bicarbonate in Ansul Dry Chemical must pass tests to insure that the size of the particles falls into a certain range. If a certain percentage of the particles are over a maximum given size, the fire extinguishing effectiveness of the dry chemical is measurably decreased. Ansul's quality control procedures insure that the fire extinguishing effectiveness is always high.

MOISTURE REPELLENCY. The materials and methods used to produce water repellency in the finished dry chemical directly affect its flow and packing characteristics and electrical resistivity. All dry chemicals will absorb moisture when exposed to highly humid atmospheres. Excessive moisture absorption causes caking of dry chemical and resultant failure of the extinguisher to operate. Ansul Extinguishers and shipping containers for dry chemical are weather-proofed to minimize the possibility of moisture absorption . . . and Ansul provides a further safeguard by furnishing a dry chemical which *can absorb four times more moisture than ordinary dry chemicals* without harmful effects to any of its characteristics.

FLOW. Ansul Extinguishers are designed to discharge dry chemical at a definite rate. Quality control during the manufacturing operation insures that Ansul *"PLUS-FIFTY"* Dry Chemical will flow at a sufficiently high rate to insure maximum fire fighting effectiveness.

MODEL 20-B

PACKING. *All* finely divided solids tend to pack. Dry chemical is no exception. Daily tests of Ansul *"PLUS-FIFTY"* Dry Chemical as it is produced insure that every batch will fluidize readily. Proper design of Ansul Extinguishers doubly insures fluidizing of dry chemical and proper, effective, discharge.

ELECTRICAL RESISTIVITY. Ansul *"PLUS-FIFTY"* Dry Chemical has an electrical resistivity of 1000 megohms. Frequent tests are made to insure that all Ansul Dry Chemical is equally resistive and always safe to use on electrical fires. Again, Ansul Dry Chemical can absorb four times more moisture than ordinary dry chemicals without impairing its electrical resistivity.

SUMMARY. Ansul's Engineering and Research Departments have developed specifications and tests to control particle size, moisture repellency, flow and packing characteristics. Last year 3500 flow tests were conducted on Ansul Dry Chemical to assure uniformly high quality of the manufactured product. You are assured of consistently high quality and maximum dependability with Ansul *"PLUS-FIFTY"* Dry Chemical.

Send for your copy of File No. 673. You will receive additional technical information on dry chemical. Also included is printed material describing Ansul's complete line of Dry Chemical Fire Extinguishing Equipment.

ANSUL
CHEMICAL COMPANY
Fire Extinguisher Division
MARINETTE, WISCONSIN

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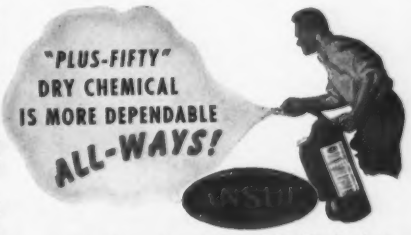

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HELMETS

In leather, aluminum or plastic, and in regulation and drop-brim styles; incorporate the "know how" of America's oldest and largest manufacturer of Firemen's Personal Equipment, and Department Record Books and Forms.

Write for Catalog 330

CAIRNS & BRO., INC.

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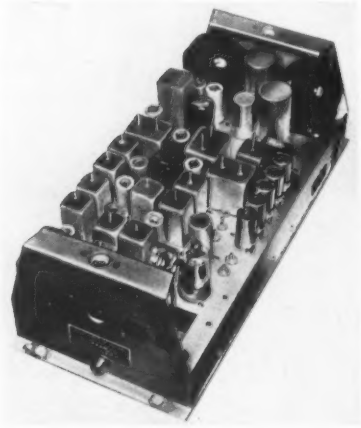
Outfitters to Firemen Since 1836

What's New In Fire Equipment?



Kaar Engineering Announces New Mobile Radio Telephone

THE "Radiopak," a new single unit transmitter-receiver for mobile communication in the 152–174 mc band is announced by Kaar Engineering Company. Equipment will operate from the regular 6 volt system of any vehicle. Write to Kaar Engineering Company, Middlefield Road, Palo Alto, California.

FIRE TRUCK FOR SALE

1—1935 Ford Chassis—Body built in 1944.
1—250 gpm Front Mounted Hale Pump
1—550 Gallon Booster Tank and
2—Lengths of suction hose plus standard equipment

Bradley Gardens Fire Company
Bradley Gardens, Somerville
New Jersey

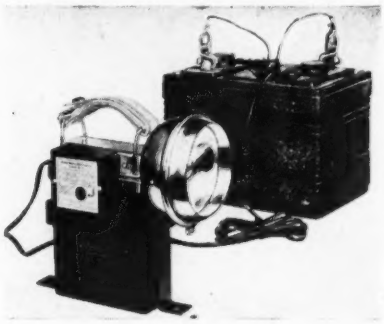
New Hose Drying Manual by Circul-Air

CIRCUL-AIR announces a new, 12-page "Hose Drying Manual" for modern fire stations. For free copy write to Circul-Air Corporation, 575 East Milwaukee Ave., Detroit 2, Michigan.

Deodorants To Help Reduce Smoke Damage

DON'T overlook Airkem coupon on page 3! Firemen will recall Chief Fred J. Wells' article in our May 1950 issue on the Fargo Fire Department's effective use of deodorants on inside fires, the positive reduction in smoke damage with direct savings to owners.

When Power Fails WHEAT FIREMAN'S SPOTLIGHT CAN NOW BE CHARGED FROM INDEPENDENT POWER SOURCE



The Model 261 Wheat Fireman's Spotlight now has the same characteristics as the new Wheat Civilian Defense Light with double light output plus standard red Fireman's battery. It can be periodically recharged from regular lighting circuit or WHEN POWER FAILS from Fire Apparatus or any storage battery.

FOR FURTHER DETAIL ON THIS DEVELOPMENT CONSULT YOUR DEALER or write today to

KOEHLER MFG. COMPANY

MARLBORO, MASS., U.S.A.

Also order WHEAT CHARGE INDICATOR

INDEX TO ADVERTISERS

	Page
Airkem, Incorporated	3
Akron Brass Manufacturing Company	28
American District Telegraph Company	25
Ansul Chemical Company	23
John Bean Manufacturing Company	2
Bomgardner Manufacturing Company	17
Cairns and Brother, Incorporated	24
Carpenter Manufacturing Company	16
Circul-Air Corporation	20
W. S. Darley & Company	26
Federal Enterprises, Incorporated	19
Firewater Company	22
Gamewell Company	4
Hale Fire Pump Company	22
Howe Fire Apparatus Company	16
Koehler Manufacturing Company	24
Mack Manufacturing Corporation	5
Midwestern Manufacturing Company	18
Oren Roanoke Corporation	18
J. P. Redington & Company	20
Rockwood Sprinkler Company	27
Russell Uniform Company	20
D. B. Smith & Company	21
Wooster Brass Company	19

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. . . IT PAYS 2 WAYS TO SAFEGUARD YOUR PROPERTY

Automatically

Many Businessmen Are Saving Money by Adopting ADT Central Station Automatic Protection Services

The high degree of security against fire, burglary and other hazards provided by ADT Automatic Protection Services in most cases makes it possible to effect substantial economies through modification of other more costly but less effective protective measures.

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We shall be glad to explain how these services may be applied to solve your particular protection problem.

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Central Stations in All Principal Cities

There Is a Champion for Every City and Rural Fire Service

CHAMPION

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One of

Three Concerns

Manufacturing

Both

Fire Pumps

and

Fire Apparatus

A highly efficient pumper apparatus with the Champion Two Stage Centrifugal Pump powered by the 145 Horsepower F-7 Ford.

The pump is the S500, Underwriter rated capacity 500 gallons per minute. Actually delivers 700 GPM pumping at draft and 1000 GPM pumping from the average city hydrant.

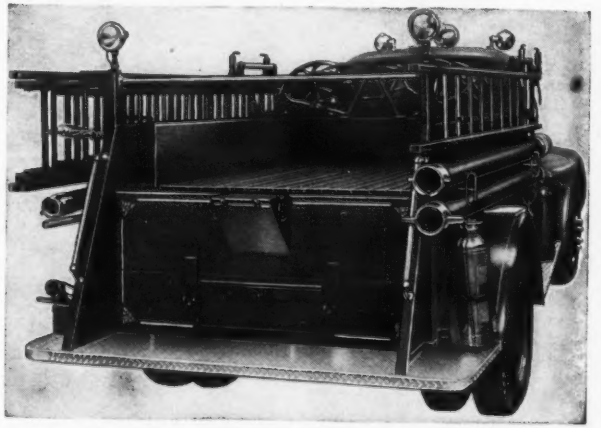
Or this Darley 80 Apparatus is also available in Underwriter capacities of 600 GPM and 750 GPM—the F-7 Ford engine having adequate power for the larger capacity pumps.

Booster Tank: 300 gallon flat type with quick action rear fill and special line piped from pump to tank for refilling tank by pumping at draft.

Booster Hose Reels: Two with horizontal and vertical guide rollers so that hose can be pulled off quickly and easily in any direction without rubbing or binding anywhere.

Hose Bed: Capacity 1200 feet 2½" double jacket fire hose and 400 feet 1½" double jacket hose. The 1½" hose is carried in partitioned space always ready for speedy and effective fire fighting. It is connected to a pump discharge outlet installed in the hose body with control valve accessible from the operating side of the pump. This 1½" line, with a small discharge tip, can be used as a third booster line when pumping from the booster tank. After 2½" fire hose is laid to a hydrant as a supply line to the pumper the 1½" line can be used with a larger tip for maximum fire extinguishing performance.

Write for Fire Apparatus Booklet



High Pressure Fog Pumps

W. S. DARLEY & CO. Chicago 12

(ESTABLISHED 1908)

Front and Midship Pumps

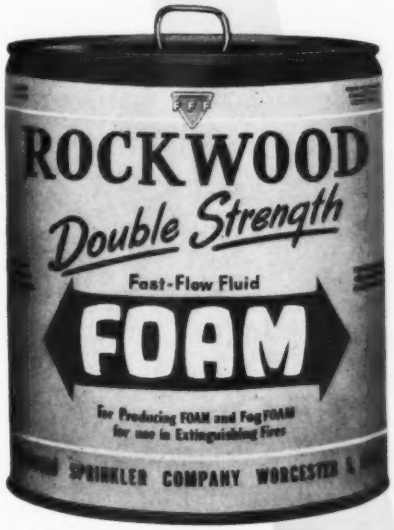
ROCKWOOD'S

New Modern Chemicals and Fire Fighting Tools Whip Gasoline Fires Faster and More Economically

The new Rockwood *Double Strength* Fast-Flow Fluid FOAM used with Rockwood's advanced types of FogFOAM and FOAM Nozzles will cover burning surfaces faster with a blanket of FOAM that completely seals off combustible vapors. This new Rockwood *Double Strength* FOAM is now available for use with hose line nozzles and permanently piped FogFOAM and FOAM systems.

We recommend these new modern chemicals and fire fighting tools to every municipal fire department, industrial plants and refineries for handling the increasing hazard of fires in flammable liquids and materials.

For the most advanced line of fire fighting products offered to firemen in half a century, write Rockwood Sprinkler Company or your nearest distributor.



ROCKWOOD *Double Strength* FOAM

Rockwood's outstanding new FOAM Liquid produces FOAM and FogFOAM for use in extinguishing fires in oil, gasoline and other highly inflammable liquids and materials. It is more fluid, faster spreading and easier to handle. Rockwood Regular FOAM—the type previously supplied—is still available for use with Rockwood devices.

NEW FFF FogFOAM NOZZLE with SCREEN

New LIGHTweight Type FFF Rockwood FogFOAM Nozzle. Available in three sizes for service on 1½" and 2½" or 3½" hose. Discharges (1) FogFOAM (with FogFOAM screen) (2) solid FOAM stream (with FOAM shaper) (3) high velocity WaterFOG pattern.

with FogFOAM SHAPER

Rockwood LIGHTweight type FFF FogFOAM Nozzle with FOAM shaper attached.

LOOK OVER THESE OUTSTANDING ADVANTAGES...

Compare these with other types of FOAM!

More fluid • Faster spreading • Flows freely at sub-zero temperatures (—15°F.) • Greater resistance to heat • Faster extinguishment of gasoline fires • Double Strength — *a gallon goes twice as far* • Stands up under tropical climates • Easier to handle • Cuts shipping cost in half • Requires only half the space for shipping and storage • Flows freely around obstructions • Clings to smooth, vertical or curved surfaces • More efficient on fire trucks • Easy to mix with water.

FOAM EDUCTOR

Rockwood FOAM eductor introduces FOAM Liquid into hose line for use with Rockwood type FFF FogFOAM Nozzles. Eductor can be attached between discharge of fire truck and hose line, connected between hydrant and hose line or between two lengths of hose. Separate models are available for FOAM and Water Wetter.

ROCKWOOD

Portable Fire Protection Division

ROCKWOOD SPRINKLER CO.

88 HARLOW STREET WORCESTER 5, MASS.

The O-47-A
TRIPLE ACTION BOOSTER

FOGNOZL

TRADE MARK

IT'S PERFORMANCE WILL CONVINCE YOU!

3/16" STRAIGHT STREAM TIP
10 g.p.m. at 100 lbs. P.S.I.

47-14 FOG TIP
15 g.p.m. at 100 lbs. P.S.I.

Also Available—
1/8" and 1/4" SS Tips—
47-9 Fan Tip

QUICK TRIPLE ACTION
Only ⅛ turn from shutoff to fog—from fog to straight stream

OPERATING PRESSURES
[illegible] lbs. P.S.I. to 800 lbs. P.S.I.

INEXPENSIVE

EFFECTIVE IN LOW WATER AREAS

The "Fightingest" BOOSTER NOZZLE that Money Can Buy!

UNEQUALLED • EFFECTIVE

Fire Control of:

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- Building and Structure Fires
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- Chemical Fires
- Oil and Grease Fires
- Tank and Vat Fires
- Trash Pile Fires
- Gasoline and Fuel Fires
- Lumber Pile and Material Fires
- And Many Other A and B Fires

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